

**AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

**LISTING OF CLAIMS**

1. (Previously Presented) A high-voltage supply device for an electric filter, comprising:  
high-voltage devices, arranged close to the electric filter, adapted to supply the electric filter with an electrical high voltage;  
measuring heads, associated with the high-voltage devices, adapted to detect and transmit at least one of measured values and diagnosis data from the high-voltage devices; and  
control units, each respectively associated with a high-voltage device, each adapted to control and regulate the associated high-voltage device depending on requirements and taking into consideration the at least one of measured values and diagnosis data detected by the measuring heads, wherein the measuring heads, on the high-voltage device side, each include an optical waveguide interface, wherein the measuring heads, on the high-voltage device side, are connected via their optical waveguide interfaces in a first local optical waveguide network, wherein the control units are connected to one another by a second local optical waveguide network, and wherein the local optical waveguide network, on the high-voltage device side, and the local optical waveguide network, on the control unit side, are coupled to one another by an optical waveguide connection.

2. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein at least one of the local optical waveguide network on the high-voltage device side, and the local optical waveguide network on the control unit side, includes a ring topology.
3. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein at least one of the local optical waveguide network on the high-voltage device side, and the local optical waveguide network on the control unit side, includes a star topology.
4. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein at least one of a ring and star topology, forming the local optical waveguide networks, is of redundant design.
5. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein the optical waveguides of the local optical waveguide networks are plastic optical waveguides.
6. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein the optical waveguide connection between the two local optical waveguide networks is of redundant design.
7. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein the optical waveguides of the optical waveguide connection are in the form of at least one of glass and PCF optical waveguides.

8. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein the optical waveguide connection is in the form of a sheathed optical waveguide cable.

9. (Currently Amended) The high-voltage supply device for electric filters as claimed in claim 1, wherein a standard protocols, ~~for example CAN, PROFIBUS, TCP/IP protocols or the like, may be~~ is used as the transmission protocol between the measuring heads and the control units.

10. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 2, wherein the ring topology, forming the local optical waveguide networks, is of redundant design.

11. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 3, wherein the star topology, forming the local optical waveguide networks, is of redundant design.

12. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein the optical waveguides of the local optical waveguide networks are prefabricated plastic optical waveguides.

13. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 2, wherein the optical waveguide connection between the two local optical waveguide networks is of redundant design.

14. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 3, wherein the optical waveguide connection between the two local optical waveguide networks is of redundant design.

15. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 2, wherein the optical waveguides of the optical waveguide connection are in the form of at least one of glass and PCF optical waveguides.

16. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 3, wherein the optical waveguides of the optical waveguide connection are in the form of at least one of glass and PCF optical waveguides.

17. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 1, wherein the optical waveguide connection is in the form of a CUPOFLEX+ cable.

18. (Previously Presented) The high-voltage supply device for electric filters as claimed in claim 9, wherein standard protocols include at least one of CAN, PROFIBUS, and TCP/IP protocols.